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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/079,580 | 02/22/2002 | Ansgar Freitag | Q68199 | 7297 |

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EXAMINER

JUBA JR, JOHN

ART UNIT PAPER NUMBER

2872

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,580

Applicant(s)

FREITAG ET AL.

Examiner

John Juba

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 - 3 and 6 – 11 are rejected under 35 U.S.C. 102(b) as being anticipated by NIKON CORP (JP 2000-315645 A; hereinafter, "NIKON"). Referring *for example* to Figures 2 and 3 and the associated text in the attached machine-assisted translation (*esp.* paras. [0003] [0006], [0028] – [0030], & [0033]), NIKON disclose a method for reducing the contamination of a lens (L) contained inside a beam guidance space and that is held by a frame (M) comprising at least partially coating the surfaces of the frame neighboring the beam guidance space with a degassing barrier layer (30).

With regard to claims 2, 3, 7 and 8, NIKON apply the same materials as disclosed in the instant specification. Thus, the examiner has reasonable belief that the materials of NIKON *inherently* exhibit the same reflectivity as those disclosed. If such is not the case, then Applicant should demonstrate that this feature is not inherent. *In re Swinehart*, 169 USPQ 226 (CCPA 1971). Further, lacking any recitation of a point of

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reference (i.e., baseline reflectivity), it is clear that the materials of NIKON do not increase reflectivity at the recited wavelengths *with respect to at least some material*. With regard to the method claims, the material of NIKON is "such that" it does not increase reflectivity, and the material has been "chosen". Thus, it appears that the material has been "chosen such that it does not increase reflectivity".

With regard to claim 9, the barrier layer comprises a nickel-phosphorous alloy ([0003]). The recitations of the layer as having been "chemically deposited" or "deposited chemically in an electrolyte" are process limitations that are not seen as imparting any positive structural limitation as would distinguish over the prior art:

"Process limitations cannot impart patentability to product claim where product is not patentably distinguished over prior art." *In re Dike*, 157 USPQ 581 (CCPA 1968).

It is well-settled that the "[p]resence of process limitations in product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to that product." *In re Stephens*, 345 F.2d 1020 (CCPA 1965), 145 USPQ 565, citing *Dilnot*.

With regard to claim 11, NIKON anticipate that the barrier layer may be used in the illumination optical system (UI) of a microlithographic system (e.g., Fig. 2), as discussed for example in paragraph [0007].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over NIKON CORP (JP 2000-315645 A), in view of Phillips, et al. As set forth above for claim 1, NIKON disclose the method substantially as claimed. However, Nikon deposit the barrier by physical vapor deposition (e.g., sputtering) and do not disclose chemically depositing the layer.

In the same field of endeavor, Phillips, et al disclose a method of coating a lens support (22) with nickel-phosphorous (Col. 3, lines 33 – 37). Phillips, et al teach that an electroless process results in a durable, low-friction surface condition.

It would have been obvious to one of ordinary skill to apply the nickel-phosphorous coating of NIKON by a chemical method, since Phillips, et al suggest the chemical method as a convenient method of depositing smooth, durable coatings on all of the surfaces of a tubular lens support. One of ordinary skill would have recognized that the electroless process of Phillips, et al meets the requirement of low-process temperatures taught by NIKON.

With particular regard to claim 5, the recited reactants were known. Thus, it appears that selection of these reactants would have been a rather obvious matter of selecting known materials based upon their suitability for the intended process. That is, in practicing the method of Phillips, et al, it is believed that one of ordinary skill would have arrived at the recited method through only routine selection of known materials suited to the process.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Piao discloses a layer of silicon nitride as a barrier to outgassing of a photoresist.

Fraizer discloses a plasma-deposited polymer barrier to outgassing of plastic substrates used as headlamp reflectors.


Wade, et al disclose a non-reflective surface treatment for surfaces of optical supports, the coating being free from hydrocarbon outgassing. The coating is not disclosed for use in a method of reducing contamination of an optical element.

NIKON CORP (JP 11-014876 A) disclose the use of a thin film of nickel as a barrier to adhesive outgassing upon exposure to UV radiation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Juba whose telephone number is (703) 308-4812. The examiner can normally be reached on Mon.-Fri. 9 - 5.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


JOHN JUBA
PRIMARY EXAMINER
Art Unit 2872

July 11, 2003